

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An image fiber comprising:

an image fiber body comprising a plurality of cores and having a twisted portion with a beginning portion, a middle portion and an end portion, wherein

the rate of twist in the middle portion is constant, the rate of twist gradually increases in the beginning portion and the rate of twist gradually decreases in the end portion; and

the plurality of cores are twisted in only one direction.
2. (previously presented): An image fiber according to claim 1, wherein the rate of twist in the middle portion is set in a range from 1°/mm to 1000°/mm.
3. (previously presented): An image fiber according to claim 1, wherein the rate of twist in the middle portion is set in a range from 5°/mm to 100°/mm.
4. (previously presented): An image fiber according to claim 1, wherein the rate of twist in the beginning portion and the rate of twist in the end portion vary in a range from 3°/mm to 400°/mm.

5. (previously presented): An image fiber according to claim 1, further comprising a protective element covering the twisted portion.

6. (original): An image fiber according to claim 5, wherein the protective element comprises a reinforcing pipe and an adhesive that adheres the reinforcing pipe to the image fiber body.

7. (original): An image fiber according to claim 6, wherein the length of the reinforcing pipe is greater than the length of the twisted portion.

8. (original): An image fiber according to claim 6, wherein the reinforcing pipe overlaps an image fiber protective layer.

9. (original): An image fiber according to claim 8, wherein the reinforcing pipe overlaps the image fiber protective layer by 1 to 10 mm.

10. (currently amended): ~~An image fiber according to claim 6~~ An image fiber comprising:

an image fiber body comprising a plurality of cores and having a protective element covering a twisted portion with a beginning portion, a middle portion and an end portion.

wherein the rate of twist in the middle portion is constant, the rate of twist gradually increases in the beginning portion and the rate of twist gradually decreases in the end portion,

wherein the protective element comprises a reinforcing pipe and an adhesive that adheres the reinforcing pipe to the image fiber body, and

wherein inside portions of the reinforcing pipe are chamfered.

11. (currently amended): ~~An image fiber according to claim 6~~ An image fiber comprising:

an image fiber body comprising a plurality of cores and having a protective element covering a twisted portion with a beginning portion, a middle portion and an end portion,

wherein the rate of twist in the middle portion is constant, the rate of twist gradually increases in the beginning portion and the rate of twist gradually decreases in the end portion,

wherein the protective element comprises a reinforcing pipe and an adhesive that adheres the reinforcing pipe to the image fiber body, and

wherein ends of the reinforcing pipe are flared.

12. (currently amended): ~~An image fiber according to claim 6~~ An image fiber comprising:

an image fiber body comprising a plurality of cores and having a protective element covering a twisted portion with a beginning portion, a middle portion and an end portion,

wherein the rate of twist in the middle portion is constant, the rate of twist gradually increases in the beginning portion and the rate of twist gradually decreases in the end portion,

wherein the protective element comprises a reinforcing pipe and an adhesive that adheres the reinforcing pipe to the image fiber body, and

wherein a middle portion of the reinforcing pipe is tapered.

13. (currently amended): ~~An image fiber according to claim 6~~ An image fiber comprising:

an image fiber body comprising a plurality of cores and having a protective element covering a twisted portion with a beginning portion, a middle portion and an end portion,

wherein the rate of twist in the middle portion is constant, the rate of twist gradually increases in the beginning portion and the rate of twist gradually decreases in the end portion,

wherein the protective element comprises a reinforcing pipe and an adhesive that adheres the reinforcing pipe to the image fiber body, and

wherein an end of the twisted portion is polished.

14. (previously presented): An image fiber according to claim 1, wherein the rate of twist in the twisted portion is set so that the elongated lengths of the cores due to twisting do not exceed four times the original lengths thereof.

15. (withdrawn): A fiber scope comprising:

an objective;

a sheath;

an illuminated fiber; and

an image fiber comprising,

an image fiber body comprising a plurality of cores and having a twisted portion; with a beginning portion, a middle portion and an end portion, wherein the rate of twist in the middle portion is constant, the rate of twist gradually increases in the beginning portion and the rate of twist gradually decreases in the end portion.

16. (withdrawn): A fiber scope according to claim 15, further comprising a protective element covering the twisted portion.